

WHAT IS CLAIMED IS:

1. A method for manufacturing an electro-optical substrate including a composite base plate obtained by joining a support plate to a semiconductor plate having semiconductor layers, comprising:

forming a light-shielding layer, having a predetermined pattern, on a support plate;

forming an insulating layer on the light-shielding layer having the predetermined pattern;

providing semiconductor layers on the insulating layer;

oxidizing parts of the semiconductor layers to form oxide layers; and
removing the oxide layers,

the oxide layers having a thickness smaller than that of the insulating layer.

2. The method for manufacturing an electro-optical substrate according to Claim 1, further comprising:

patterning the semiconductor layers; and

oxidizing parts of the semiconductor layers having a predetermined pattern to form the oxide layers,

the patterning step and oxidizing step being performed after the semiconductor layer-providing step.

3. The method for manufacturing an electro-optical substrate according to Claim 1, further comprising:

oxidizing parts of the semiconductor layers to form gate oxide layers,

the semiconductor layer-oxidizing step being performed after the oxide layer-removing step.

4. The method for manufacturing an electro-optical substrate according to Claim 1, the oxide layers having a thickness smaller than that of parts of the insulating layer disposed in areas above which the semiconductor layers are not placed, and which are disposed on the light-shielding layer.

5. The method for manufacturing an electro-optical substrate according to Claim 1, further comprising:

forming a silicon nitride layer or silicon oxide nitride layer between the light-shielding layer and the insulating layer.

6. The method for manufacturing an electro-optical substrate according to Claim 1, the semiconductor layer-providing step including a sub-step of joining a

single-crystal semiconductor plate including the semiconductor layers to a support plate including the insulating layer.

7. The method for manufacturing an electro-optical substrate according to Claim 1, the light-shielding layer containing a high-melting metal or a silicide containing a high-melting metal.

8. A method for manufacturing an electro-optical apparatus including a semiconductor element, comprising manufacturing an electro-optical substrate including the semiconductor element by the manufacturing method according to Claim 1.

9. An electro-optical apparatus having a substrate and a semiconductor element disposed thereon, and further comprising:

 a light-shielding layer, disposed on the substrate, having a predetermined pattern;

 an insulating layer disposed on the light-shielding layer; and
 semiconductor layers, disposed on the insulating layer, having a predetermined pattern,

 the insulating layer, disposed between the light-shielding layer and
 semiconductor layers, lying in a display region having a thickness of 0.4 μm or more.